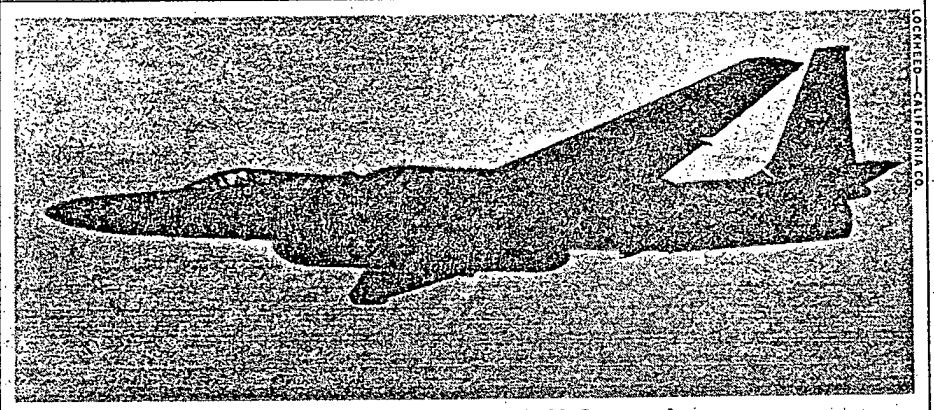

Advanced version of the U-2 on patrol for the Strategic Air Command

A New Life for a High-Flying Bird

At the "Skunk Works," a successor to the U-2 takes shape

Though it was designed in 1954, it is still the world's highest-flying single-engine aircraft, capable of soaring more than 15 miles above the earth at speeds up to 530 m.p.h. Until one was brought down by a Soviet missile in 1960, causing a dramatic cold war confrontation, U-2s regularly flew over the Soviet Union, looking for signs of military buildup. About 30 U-2s are still in service, but a new version of the old bird, called the TR-1, is about to rise out of a mysterious Lockheed facility that produces supersecret military hardware for the Air Force Logistics Command. Last week TIME Correspondent Jerry Hannifin, the first reporter ever to tour the plant, filed this account:

It's officially called Air Force Plant No. 42, and the factory at the edge of the desert in Palmdale, Calif., is a longish way from the old green-painted hangar in Burbank where it all began. But to everyone in military aviation, it is still the "Skunk Works," after the foul-smelling still where one of Al Capp's *Li'l Abner* characters brewed Kickapoo Joy Juice. A fitting nickname. Over the years an incredible string of secret weaponry—including the new breed of nearly "invisible" (to radar) planes—has emerged from the Skunk Works.

It was the U-2, though, that made the Skunk Works an air-age legend. When the first U-2s were being built, Chief Designer Clarence ("Kelly") Johnson and his team worked overtime and got whatever they wanted. After he told his old pal Air Force General Jimmy Doolittle, then at the Shell Oil Co., that he needed a fuel that would not boil off at the low pressures of the upper atmosphere, Shell scientists produced a special low-boil, kerosene-type fuel just for Johnson's plane. Inevitably, it became known as Kelly's Lighter Fluid No. 1.

Today the same measure of dedication sparks the Skunk Works assembly line, where much of the work is still done by hand under Johnson's successor Ben Rich. Says Engineer Don Bunce, 62, who came out of retirement to work on the new bird: "Hell, I feel good just seeing all these old tools doing a job again."

For that he can thank Johnson. After the production of dozens of planes, the U-2 assembly line was shut down in 1969. Ordinarily the millions of dollars in tools, dies and jigs for crafting the planes would have been scrapped. But Johnson had a premonition. "I hid 'em away in four different places," he recalls. "Put them in Cosmoline [a greasy preservative] just in case we'd ever get a rainy day."

That day came two years ago, when the Pentagon decided it needed a new version of the old spy plane. It would incorporate the latest "stealth" features as well as updated electronic snooping capability that can peer sideways over borders and transmit data—including TV-type pictures—directly back to military commanders on the ground. Twenty-five TR-1s will be built at a cost of $550 million. Thanks to Johnson's premonition, the bill will be a tidy $10 million less than it might have been had he not squirreled away those old tools. ■

Dwindling Breed

Sex and the single gorilla

Poor Omega. Once the pride of the Brookfield (Ill.) Zoo, he is now an outcast. Rejected by two female companions, the hefty 450-lb. gorilla sits alone in his cage, forlornly munching on alfalfa or taking a lackadaisical swing on the rubber tire hanging from his ceiling. Omega's problem is that he is sterile.

Along with chimpanzees and orangutans, gorillas are man's closest kin. They are also remarkably susceptible to human ailments, including mumps, measles, even ordinary colds; and although Omega has never seemed seriously ill, his sperm count is now nil. No one is sure why. It could be his weight (obesity can interfere with gorilla lovemaking); it could also be years of sexual inactivity. Whatever the reason, says Primate Curator Benjamin Beck, Omega's condition is all too common among gorillas in captivity, and that has scientists worried.

No more than 12,000 gorillas still roam freely in their native Central Africa, and many experts feel that wild gorillas could be all but extinct by the year 2000. That leaves only zoos, primate centers and wildlife preserves as repositories of these greatest of all apes. Yet the 600 or so gorillas in captivity have been extremely poor breeders. Only about 100 animals have been born in North America in the past decade, hardly enough to ensure survival of the species.

These "second-generation" gorillas have an even lower reproductive rate than the ones brought in from the wild. Part of the problem, according to primatologists who met in Atlanta last month to discuss gorilla fecundity, is that baby gorillas have often been hand-raised by solicitous zookeepers. So they never learned the requisite gorilla social graces, including the nuances of courtship. Says James Doherty of New York's Bronx Zoo: "You get a gorilla that thinks he's people and not a gorilla."

Zoos will also probably have to give up the custom of pairing baby male and female gorillas. The practice may make them feel and act more like brother and sister than lovers when they reach sexual maturity (at about age eight). At the Cincinnati Zoo, for instance, a male named Mgolo delighted in pummeling Penelope, who had shared a cage with him since infancy. She refused to breed with him. Only after she had been moved in with another couple did she find her true love. As a result of this and similar matchmaking, the zoo now has 14 offspring. ■

Omega contemplating a barren future

Some think they are really people.